REMARKS

Claims 1-16 remain pending in this application. Claims 1, 8 and 12 have been amended hereby. Support for the amendments to the claims can be found throughout the specification, and in particular, paragraphs [0020] and [0021] thereof. No new matter has been presented. For the reasons stated below, Applicants respectfully submit that all claims pending in this application are in condition for allowance.

In the Office Action dated August 21, 2009, claims 1-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Allison et al. (WO 200271234 A) ("Allison") in view of Gould et al. (U.S. 2004/0199592 A1) ("Gould") and further in view of Wolczko et al. (U.S. 6,728,738) ("Wolczko"). This ground of rejection is respectfully traversed.

The presently claimed invention is directed to methodologies for keeping track of message traffic and raising an alarm when a number of messages received from a particular source or destined for a particular destination exceed a predetermined threshold. In order to reduce the number of false alarms that may be produced due to unabated incrementing of counters associated with sources or destinations, embodiments of the present invention provide for, e.g., reducing source counters in accordance with a specific methodology.

Specifically, as messages are received, a timestamp is added to an array of timestamps and a source address counter is incremented for each entry so added. As a result, the array of timestamps includes multiple entries for each source address ("wherein the array of timestamps includes more than two timestamps for a given source address").

It is acknowledged in the paragraph bridging pages 3 and 4 of the Office Action dated August 21, 2009 that neither Allison nor Gould teaches an array of timestamps including more than two timestamps for a given source, or iterating through the array to remove entries therein. For these aspects of the claimed invention the Office Action cites to Wolczko.

Wolczko discloses a method for "lifetime analysis" of objects in a garbage-collected system, wherein "reference counts" are maintained for each object in an object graph. Reference counts are stored values that indicate the number of incoming pointers to a given object. Wolczko at col. 3, lines 40-43 and Figs. 2 and 3. Fig. 3 of Wolczko illustrates a problem in

which even though the reference counts of objects 302, 304 and 306 in cycle 300 are all non-zero, those objects may nevertheless be dead as none of the objects in the cycle is, in fact, reachable from a root. Wolczko at col. 3, lines 59-65. To identify the dead objects in such a cycle, Wolczko discloses using a "tracing collector," such as mark-sweep collector, "to detect when objects are cyclic garbage." Wolczko at col. 4, lines 56-59. Then, to figure out precisely when a cycle (and objects therein) actually died, timestamps of changes to the cycles are examined in reverse chronological order. Wolczko at col. 4, lines 1-5. The lifetime of a given object may then be determined based on the time it was created and the time it dies. Wolczko at col. 4, line 67 to col. 5, line 5.

Significantly, in Wolczko, the timestamp values have to do with when an object is pointed to. As such, the reference count in Wolczko need not and, in fact, does not keep track of **which** other object(s) pointed to a given object. In other words, Wolczko does not track sources at all. Consequently, Wolczko does not disclose an array of timestamps having "more than two timestamps for a given source," as is required by the claims, since Wolczko does not have any idea what source (other object) has caused the reference count to be incremented. As a result, Wolczko does not overcome the acknowledged deficiencies of Allison and Gould. For this reason alone, the claims pending in this application should be allowable.

Notwithstanding the foregoing, and in an effort to accelerate the prosecution of this application, Applicant has further amended the independent claims to recite yet another specific detail of the novel message traffic tracking methodology of the present invention. Specifically, the claims now require that when entries in the timestamp array that are older than a fixed window size are removed, other entries are left in the array of timestamps that are not older than the fixed window size ("removing entries in the timestamp array that are older than a fixed window size while leaving entries in the array of timestamps that are not older than the fixed window size"). At the same time, the source counter is decremented for each entry so removed.

This newly added limitation is consistent with, e.g., Table 2 in paragraph [0021] of the instant specification, which shows that even after removing a certain number of entries (see "Number Removed" column), entries still remain in the array (see "Ending Total" column).

Wolczko does not disclose anything of this sort. At best, Wolczko implies that once it is determined that an object or cycle is "dead," then there is no need to reserve memory for those elements. As such, all information associated with "dead" objects or cycles would be deleted. As explained in the background section of Wolczko, "garbage collection refers to the recovery of pooled computer storage that is being used by a program when that program no longer needs the storage." Wolczko at col. 1, lines 13-15. Then, in the brief description of the invention section, Wolczko states, "[f]or each timestamp found, the corresponding object and any object reachable from the corresponding object are indicated as dead. These objects are then removed from the set of cyclic garbage." Wolczko at col. 2, lines 7-10 (emphasis added).

Thus, even if Wolczko were combinable to obtain the requirement of the recited timestamp array ("more than two timestamps for a given source"), which Applicant does not concede, such a combination would never result in a methodology that keeps or leaves timestamp entries after other entries are removed or deleted.

Finally, and contrary to the assertion made in the Office Action, Gould does not disclose decrementing a source counter when entries in the array of timestamps are removed, as required by the claims. Gould only discloses incrementing a message counter. See, e.g., paragraph [0046] of Gould. If the message rate calculated in Gould is above a threshold, then "remedial action" is taken, including, e.g., discarding or blocking emails or delaying emails. See, e.g., paragraph [0049] of Gould. However, there is no disclosure regarding decrementing the message counter as a result of any of those actions. Accordingly, Gould does not disclose an expressly required element of the claims.

In view of the forgoing, all of the claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone applicants' undersigned representative at the number listed below.

Dated: February 23, 2010   Respectfully submitted by:

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